

WHAT IS CLAIMED IS:

5 1. A nucleic acid segment of from about 3567 to about 10,000 nucleotides in length, comprising a δ -endotoxin gene encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:59 or SEQ ID NO:61.

10 2. The nucleic acid segment of claim 1, wherein said gene encodes a polypeptide having insecticidal activity against Lepidopterans.

15 3. The nucleic acid segment of claim 1, wherein said nucleic acid segment is isolatable from *Bacillus thuringiensis*.

20 4. The nucleic acid segment of claim 1, wherein said nucleic acid segment comprises the nucleic acid sequence of SEQ ID NO:58 or SEQ ID NO:60, or a complement thereof.

5. The nucleic acid segment of claim 1, further defined as a DNA segment.

25 6. The nucleic acid segment of claim 1, wherein said nucleic acid segment is operably linked to a promoter that expresses said gene in a host cell.

30 7. The nucleic acid segment of claim 1, comprised within a recombinant vector.

8. The nucleic acid segment of claim 7, comprised within a plasmid, cosmid, phage, phagemid, viral, baculovirus, bacterial artificial chromosome, or yeast artificial chromosome recombinant vector.

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9. A nucleic acid segment according to claim 1, for use in a recombinant expression method to prepare a recombinant polypeptide.

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10. The nucleic acid segment of claim 1, wherein said gene is comprised within an insect resistant transgenic plant.

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11. A method of preparing a δ -endotoxin, comprising expressing in a host cell the nucleic acid segment of claim 1 and collecting the expressed polypeptide.

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12. The method of claim 11, wherein said host cell is a transgenic plant cell.

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13. The method of claim 11, wherein said nucleic acid segment is comprised within a vector.

14. The method of claim 13, wherein said vector a plasmid, cosmid, phage, phagemid, viral, baculovirus, bacterial artificial chromosome, or yeast artificial chromosome recombinant vector.

15. A method of preparing an insect-resistant plant, comprising transforming said plant with a nucleic acid segment according to claim 1.

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16. A host cell comprising the nucleic acid segment of claim 1.

17. The host cell of claim 16, wherein said host cell is a bacterial cell.

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18. The host cell of claim 17, wherein said cell is an *E. coli*, *B. thuringiensis*, *B. subtilis*, *B. megaterium*, or a *Pseudomonas* spp. cell.

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19. The host cell of claim 18, wherein said cell is a *B. thuringiensis* EG12111 or EG12121 cell.

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20. The host cell of claim 16, wherein said cell is an eukaryotic cell.

21. The host cell of claim 20, wherein said host cell is a plant cell.

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22. The host cell of claim 21, wherein said cell is a grain, tree, vegetable, fruit, berry, nut, grass, cactus, succulent, or ornamental plant cell.